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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/740,016	12/18/2003	Paul J.G. Van Wulfften Palthe	68.0382	1737

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EXAMINER

HOUSE, LETORIA G

ART UNIT PAPER NUMBER

3672

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/740,016	VAN WULFFTEN PALTHE, PAUL J.G.	
	Examiner	Art Unit	
	Latoria House	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/18/03 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/18/03</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it does not convey the nature and scope of the technical disclosure. It purports only the merits. Correction is required. See MPEP § 608.01(b).
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: Rigless One-Trip System and Method.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the wireline or slickline for operating the completion system per claim 30 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

Art Unit: 3672

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 2, 3, and 21 are objected to because of the following informalities: the applicant has misspelled the term hanger by spelling it as "hangar". Appropriate correction is required.

Claim Rejections - 35 USC § 102

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1, 2, 8, 19-20, 22, 24, 28, ~~29-34~~²⁹⁻³⁵ and ~~35~~³⁵ are rejected under 35

U.S.C. 102(a) as being anticipated by George et al. (6,568,474). Note Figures 1 and 3.

With regard to claim 1, George et al. discloses rigless one-trip perforation and gravel pack system (6) and method comprising: an upper completion assembly and a lower completion assembly (10 and 20) attached to the upper completion assembly, which can be positioned in a well and operated without the use of a rig.

With regard to claim 2, George et al. discloses a tubing hanger, production tubing (3) sealingly attached to the tubing hanger, and a packer (12) attached to the lower end of the production tubing.

With regard to claim 8, George et al. discloses an extension (15) having an intermediate sliding sleeve valve (14) mounted below the packer (12).

With regard to claim 19, the reference discloses an upper assembly having upper completion components, a lower assembly (10 and 20) joined to the lower end of the upper assembly, having lower completion components, wherein the upper and lower completion assemblies can be operated without a rig.

With regard to claim 20, the reference discloses an upper completion assembly comprising a production tubing (3) and a packer (12).

With regard to claim 22, the reference teaches the upper completion components comprising an upper valve (15) to permit or prevent fluid communication between the interior of the production tubing (3) and the exterior of the production tubing.

With regard to claim 24, the reference teaches the upper completion components comprising an extension tubing (15) below the packer (12), the extension having an intermediate valve to permit or prevent fluid communication between the interior of the extension tubing and the exterior of the extension tubing.

With regard to claim 28, the reference teaches the lower completion components (10 and 20) comprising a perforating gun (21).

With regard to claim 29, the reference is capable of performing the following steps: Providing a one-trip completion system (6); placing the one-trip completion

Art Unit: 3672

system in its proper position in the well using a rig; removing the rig; and actuating and operating the one-trip completion system using a continuous medium. See Figure 1, item 102.

With regard to claim 30, the reference is capable of performing the steps of claim 29 wherein the continuous medium is coiled tubing or wireline. See Column 6, lines 19-20.

With regard to claim 31, the reference is capable of performing a gravel pack operation. See figure 1, item 113; figure 2, item 10.

With regard to claim 32, the reference is capable of performing a fracturing operation. See figure 1, item 14.

With regard to claim 33, the reference is capable of performing a perforating operation. See figure 1, item 108; figure 2, item 20.

With regard to claim 34, the reference is capable moving a sand exclusion device to a position adjacent perforations in a well casing. See figure 1, item 111.

With regard to claim 35, the reference is capable of performing the steps of: placing a one-trip completion system in a desired location in the well using a rig, the one-trip completion system having a perforating gun (21), a sand screen (13), and production tubing (3); removing rig; firing the perforating gun to create perforations in a subsurface formation; moving the sand screen to a position adjacent the perforations; pumping gravel outside of and around the sand screen; and producing fluids from the well through the production tubing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (6,568,474) in view of Strattan et al. (U.S. 5,211,243).

George et al. discloses the apparatus as applied to the claims above, but failed to teach a valve located near the earth's surface and mounted above the tubing hanger to control flow of well fluids. Strattan et al. teaches the use of an annular safety valve (100) that can be run into the well in one trip along with other equipment, and suggests that a surface mounted valve is useful in order to prevent blow out in the event of an uncontrollable situation. Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the completion system of George et al. to include the safety valve of Strattan et al. in order to prevent blow out and increase the level of safety during well operations.

7. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (6,568,474) in view of Floyd et al. (U.S. 5,875,852).

With regard to claim 7, George et al. discloses the apparatus as applied to the claims above, but fails to disclose the upper completion assembly further comprising a surface-controlled subsurface safety valve located in-line with the production tubing. Floyd et al. teaches the use of a surface controlled subsurface valve (42) used in conjunction with a gravel packing apparatus (32) and suggests that the valve is useful in that minimizes dangerous wellbore conditions. Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the system of George et al. to include the safety valve of Floyd et al. to obtain a higher degree of wellbore safety.

With regard to claim 7, George et al. fails to disclose the upper completion assembly further comprising an upper sliding sleeve valve mounted in-line with the production tubing above the packer. Floyd et al. teaches the use of a sliding sleeve valve (48) in the above configuration above and below a packer (26), and suggests that it is useful in that it provides an annular fluid passage for circulating purposes.

Therefore it would have been obvious to one skilled in the art at the time of the invention to modify the system of George et al. to include the sliding sleeve valve of Floyd et al. in order to improve wellbore fluid circulation.

8. Claims 5-6, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (6,568,474) in view of Ringgenburg et al. (U.S. 5,875,852).

Art Unit: 3672

George et al. discloses the apparatus as applied to the claims above, but fails to disclose the upper completion assembly further comprising an artificial lift device to assist in the production of well fluids; the artificial lift device being an electric submersible pump (94). Ringgenburg et al. teaches the use of an electric submersible pump in a well completion system, and suggests that a pump is needed to draw fluid from the formation See figure 2, and column 9, lines 52-54. Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the completion apparatus of George to include the electric submersible pump of Ringgenburg et al. in order to draw fluid from the formation when well pressure is low.

9. Claims 3 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (6,568,474) in view of Fenton (U.S. 6,253,854).

George et al. discloses the apparatus as applied to the claims above, but fails to disclose the upper completion assembly of the apparatus comprising a tubing hanger, a surface valve, and a subsurface valve. Fenton discloses an emergency kill well method comprising a tubing hanger (36), a surface valve (22, 24), and a subsurface valve (column 4, lines 20-22). Fenton suggests that the combination of the aforementioned components is useful during wellbore operations, such as perforating, to ensure safety in the event that the downhole safety valve fails. Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the apparatus of George et al. to include the combination safety features of Fenton in order to ensure safety during emergency situations.

10. Claims 9-15, 17-18, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (6,568,474) in view of Gano et al. (U.S. 6,382,323). With regard to claims 9-15 and 17, George et al. discloses the apparatus as applied to the claims above with the lower completion assembly having a perforating assembly that includes a perforating gun, a firing head, a safety spacer, a sand exclusion device with a sand screen, and an inner string releasably mounted within the interior of the lower completion assembly, but fails to teach a selective nipple attached to a lower end of the upper completion assembly; a shroud attached to the selective nipple; a no-go nipple mounted to the shroud; the perforating assembly mounted below the no-go nipple; a lock to keep the inner string secured to the selective nipple; a lower sliding sleeve valve; and a configuration in which the inner string can be moved from a first configuration of being mounted to the selective nipple to a second configuration in which it is mounted to the no-go nipple. Gano et al. discloses a releasable no-go tool having selective nipple (42), a shroud attached to the selective nipple, a no-go nipple (40) mounted to the shroud (44); a lock (48) to keep the inner string (20) secured to the nipple; and a perforating assembly (24) mounted below the no-go nipple; a lower sliding sleeve valve (54); in which the perforating assembly could be moved from the selective nipple to the no-go structure. Gano et al. suggest that a releasable no-go tool is useful in order to accurately position an item of equipment used in wellbore operations. Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the completion assembly of George et al. to include the releasable

Art Unit: 3672

no-go tool of Gano et al. in order to maintain the proper orientation of the tool during perforating and fracturing operations.

11. Claims 9-15, 17-18, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (6,568,474) in view of Shy (U.S. 6,199,632).

With regard to claims 9-15 and 17, George et al. discloses the apparatus as applied to the claims above with the lower completion assembly having a perforating assembly that includes a perforating gun, a firing head, a safety spacer, a sand exclusion device with a sand screen, and an inner string releasably mounted within the interior of the lower completion assembly, but fails to teach a selective nipple attached to a lower end of the upper completion assembly; a shroud attached to the selective nipple; a no-go nipple mounted to the shroud; the perforating assembly mounted below the no-go nipple; a lock to keep the inner string secured to the selective nipple; a lower sliding sleeve valve; and a configuration in which the inner string can be moved from a first configuration of being mounted to the selective nipple to a second configuration in which it is mounted to the no-go nipple. Shy discloses a perforating apparatus having a selective nipple (38), a shroud attached to the selective nipple, a no-go nipple (74) mounted to the shroud; a lock (50) to keep the inner string (48) secured to the nipple; a perforating assembly mounted above the no-go nipple; a lower sliding sleeve valve (60); and a configuration in which the inner string can be moved from being mounted at the nipple to being mounted at the no-go nipple. Shy does not show the perforating assembly mounted below the no-go nipple. It is an obvious design choice to reverse

Art Unit: 3672

the configurations to modify the design. (Shy column 12, lines 45-48. Shy suggests that this configuration of components is useful in single trip perforation and fracturing operations to ensure proper alignment of the tool both in an axial and circumferential orientation. Therefore it would have been obvious to one skilled in the art at the time of the invention to modify the completion system of George et al. to include the locating nipples of Shy in order to maintain the proper orientation of the tool during perforating and fracturing operations. Absent a showing of criticality in the location of the perforating gun in relation to the no-go nipple, the Shy reference meets the limitations of the claims.

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (6,568,474) in view of Gano et al. (U.S. 6,382,323) as applied to claims 9-15, 17-18, and 25-27, and in further view of Donnelly et al. (U.S. 5,901,789). The combined reference of George et al. and Gano et al. discloses the apparatus as applied to the claims above, but fails to teach the use of an sand exclusion device with an expandable element. Donnelly et al. discloses such a device and suggest that an expandable element is useful to ensure a continuous mechanical contact between the screen and formation where there are inconsistencies in wellbore geometry. Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the apparatus of the combined references of George et al. and Gano et al. to incorporate the expandable sand exclusion element of Donnelly et al. in order to further prevent the migration of solid particles into a hydrocarbon wellbore.

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (6,568,474) in view of Shy (U.S. 6,199,632) as applied to claims 9-15, 17-18, and 25-27, and in further view of Donnelly et al. (U.S. 5,901,789). The combined reference of George et al. and Shy teaches the apparatus as applied to the claims above, but fails to teach the use of an sand exclusion device with an expandable element. Donnelly et al. discloses such a device and suggest that an expandable element is useful to ensure a continuous mechanical contact between the screen and formation where there are inconsistencies in wellbore geometry. Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the apparatus of the combined references of George et al. and Shy to incorporate the expandable sand exclusion element of Donnelly et al. in order to further prevent the migration of solid particles into a hydrocarbon wellbore.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Letoria House whose telephone number is (571) 272-8118. The examiner can normally be reached on M-F, 7:00 A.M. - 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David Bagnell
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Art Unit 3672

LGH